

521B M17
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CONT

(c) an array of controllable modulators to independently modulate each of the raster elements for each of said P blocks; and

(d) a surface on which N image blocks of total number of M pixels are formed and displayed, where the number M exceeds the number N and where said surface preceding components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen.

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50. (Amended) A system as in claim 48, comprising a plurality of said complementary screens.

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55. (Amended) A system as in claim 71 further comprising a plurality of said complementary screens.

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57. (Amended) A method for forming an image on an image display surface by forming a plurality of constituent blocks of said image, so that the image is presented as comprised of a plurality of blocks, comprising the steps of:

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(a) providing at least one complementary screen having a two dimensional array of N pixels from which raster elements of one or more pixels are generated with one or more of said raster elements to comprise a block of an image;

(b) using a raster multiplying system comprising a plurality of light dividing elements for dividing incoming light beam into parts, with said light dividing elements to

separate a raster element corresponding light beam into a plurality of beam components to simultaneously form copies of each said generated raster element with said copies of said raster elements forming corresponding raster elements in P blocks, said P blocks together comprising M pixels each block generally comprising a two dimensional array of pixels;

(c) transmitting the formed beam components to an array of controllable modulators to independently modulate each raster element copy in accordance with control signals applied for each of said P blocks; and

(d) repeating the procedure successively generating other raster elements from said complementary screen with said elements to simultaneously form a modulated raster in said blocks; and

(e) displaying N formed blocks on an image display surface, where M is greater than N.

58. (Amended) A method as in claim 57 further comprising the step of using a plurality of complementary screens.

69. (Amended) A 3D holographic image display system comprising:

(a) at least one complementary screen of one of light emitting or light source modulating devices in a two dimensional array of N (a real number) pixels, from which raster elements comprising one or more pixels are generated;

(b) a raster multiplying system comprising a plurality of passive and at least

partly light transmitting elements to simultaneously form copies of said generated raster elements of a complementary screen, with said raster element copies forming corresponding raster elements in P blocks with each block generally comprising a two dimensional array of pixels;

(c) an array of controllable modulators to independently modulate each of the raster elements for each of said P blocks;

(d) a surface on which a hologram blocks of total number of M pixels are formed, where the number M exceeds number N and where said surface preceding components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen; and

(e) a holograph generator for producing a 3D holographic image from said surface.

71. (Amended) A system as in claim 48 used for image recording further comprising:

(e) a photosensitive plane on which an outer image to be recorded is produced, said outer image comprising a plurality of said blocks, each block being of a two dimensional array of pixels, and all said blocks comprising M pixels, where number M exceeds number N, and where said system components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen; and

(f) means to scan said outer image on said photosensitive plane into

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electric signals for recording.

73. (Amended) A method as in claim 57 used for image recording wherein said image display surface of step (e) comprises a photosensitive plane on which an outer image is produced and further comprising that the step of point (b) is followed by:

(f) converting the image information received on said plane by the projection of said beam components into P electric signals, one signal for one of said P blocks, for recording received information for P separate image elements; and

(g) repeating the procedure by successively generating other raster elements on said complementary screen, to simultaneously scan each of P blocks.

Add the following claim:

79. A system as in claim 69 wherein an array of light dividing elements forms said raster multiplying system.

REMARKS

This submission is in response to the Official Action dated August 7, 2002.

Claims 48-50, 52, 55-61, 63, 67-69, 71, 73, 75-78 are pending. A new claim 79 is added.

This Response uses the same paragraph numbers as the Office Action.

The Examiner also should note that there was no action on claim 75, which depends from claim 57 and appears at page 7 of the amendment dated June 17, 2002. It is